PATENT
ATTORNEY DOCKET NO. 07180/004003

Certificate of Mailing

Date of Deposit April 5, 2001 Label Number: EL509049565US

I hereby certify under 37 C.F.R. § 1.10 that this correspondence is being deposited with the United States Postal Service as **"Express Mail Post Office to Addressee"** with sufficient postage on the date indicated above and is addressed to: BOX PATENT APPLICATION, Assistant Commissioner for Patents, Washington, D.C. 20231.

Guy E. Beardsley
Printed name of person mailing correspondence

Signature of person mailing correspondence

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Vassilis I. Zannis et al.	Art Unit:	Not Yet Assigned
Serial No.:	Not Yet Assigned	Examiner:	Not Yet Assigned
Filed:	April 5, 2001	Customer No.:	21559
Title:	COMPOUNDS AND METHODS FOR LOWERING CHOLESTEROL LEVELS WITHOUT INDUCING HYPERTRIGYLCERIDEMIA		

Assistant Commissioner For Patents
Washington, DC 20231

SUBMISSION OF SEQUENCE STATEMENT

In order to complete the application, the applicant encloses:

☒ An initial paper copy of the sequence listing Applicant hereby requests that it be entered into the specification by insertion at the end of the application.

☒ An initial copy of the sequence listing in computer readable form.

☒ A statement that the contents of the paper and computer readable copies are the same and contain no new matter.

If there are any charges, or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: April 5, 2001

Paul T. Clark
Reg. No. 30,162

Clark & Elbing LLP
176 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045

21559
PATENT TRADEMARK OFFICE

PATENT
ATTORNEY DOCKET NO. 07180/004003

Certificate of Mailing

Date of Deposit April 5, 2001 Label Number: EL509049565US

I hereby certify under 37 C.F.R. § 1.10 that this correspondence is being deposited with the United States Postal Service as **"Express Mail Post Office to Addressee"** with sufficient postage on the date indicated above and is addressed to: BOX PATENT APPLICATION, Assistant Commissioner for Patents, Washington, D.C. 20231.

Guy E. Beardsley
Printed name of person mailing correspondence

Signature of person mailing correspondence

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Vassilis I. Zannis et al.	Art Unit:	Not Yet Assigned
Serial No.:	Not Yet Assigned	Examiner:	Not Yet Assigned
Filed:	April 5, 2001	Customer No.:	21559
Title:	COMPOUNDS AND METHODS FOR LOWERING CHOLESTEROL LEVELS WITHOUT INDUCING HYPERTRIGYLCERIDEMIA		

Assistant Commissioner For Patents
Washington, D.C. 20231

STATEMENT UNDER 37 C.F.R. § 1.821

As part of the patent application filed herewith, enclosed is a sequence listing in accordance with the requirements of 37 C.F.R. §§ 1.821 through 1.825 and consisting of 14 pages.

As required by 37 C.F.R. § 1.821(c), the sequence listing appears as a separate part of the application and is found after the Combined Declaration and Power of Attorney. Each sequence in the application appears separately in the sequence listing. And each sequence in the sequence listing is assigned a separate sequence identifier.

As required by 37 C.F.R. § 1.821(d), the sequence identifiers are used throughout the application description and claims to refer to their respective sequences.

As required by 37 C.F.R. § 1.821(e), enclosed is a diskette containing a copy of the sequence listing in computer readable form.

As required by 37 C.F.R. § 1.821(f), I hereby state that the contents of the computer readable form are the same as the contents of the paper copy.

As required by 37 C.F.R. § 1.821(g), I hereby state that this submission contains no new matter.

If there are any charges, or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: April 5, 2001

Paul T. Clark
Reg. No. 30,162

Clark & Elbing LLP
176 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045

\\NTSERVER\documents\07180\07180.004003 Sequence Statement.wpd

21559
PATENT TRADEMARK OFFICE

SEQUENCE LISTING

<110> Zannis, Vassilis
Kypreos, Kyriakos E.

<120> Compounds and methods for lowering cholesterol levels without inducing hypertriglyceridemia

<130> 07180/004003

<150> US 09/679,088
<151> 2000-10-04

<150> US 09/544,386
<151> 2000-04-06

<160> 19

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 299
<212> PRT
<213> Homo sapiens

<400> 1

Lys	Val	Glu	Gln	Ala	Val	Glu	Thr	Glu	Pro	Glu	Pro	Glu	Leu	Arg	Gln
1				5				10						15	
Gln	Thr	Glu	Trp	Gln	Ser	Gly	Gln	Arg	Trp	Glu	Leu	Ala	Leu	Gly	Arg
			20					25					30		
Phe	Trp	Asp	Tyr	Leu	Arg	Trp	Val	Gln	Thr	Leu	Ser	Glu	Gln	Val	Gln
		35					40					45			
Glu	Glu	Leu	Leu	Ser	Ser	Gln	Val	Thr	Gln	Glu	Leu	Arg	Ala	Leu	Met
	50					55					60				
Asp	Glu	Thr	Met	Lys	Glu	Leu	Lys	Ala	Tyr	Lys	Ser	Glu	Leu	Glu	Glu
65					70					75					80
Gln	Leu	Thr	Pro	Val	Ala	Glu	Glu	Thr	Arg	Ala	Arg	Leu	Ser	Lys	Glu
				85					90					95	
Leu	Gln	Ala	Ala	Gln	Ala	Arg	Leu	Gly	Ala	Asp	Met	Glu	Asp	Val	Arg
			100					105					110		
Gly	Arg	Leu	Val	Gln	Tyr	Arg	Gly	Glu	Val	Gln	Ala	Met	Leu	Gly	Gln
		115					120					125			
Ser	Thr	Glu	Glu	Leu	Arg	Val	Arg	Leu	Ala	Ser	His	Leu	Arg	Lys	Leu
	130					135					140				
Arg	Lys	Arg	Leu	Leu	Arg	Asp	Ala	Asp	Asp	Leu	Gln	Lys	Arg	Leu	Ala
145					150					155					160
Val	Tyr	Gln	Ala	Gly	Ala	Arg	Glu	Gly	Ala	Glu	Arg	Gly	Leu	Ser	Ala
				165					170					175	
Ile	Arg	Glu	Arg	Leu	Gly	Pro	Leu	Val	Glu	Gln	Gly	Arg	Val	Arg	Ala
			180					185					190		
Ala	Thr	Val	Gly	Ser	Leu	Ala	Gly	Gln	Pro	Leu	Gln	Glu	Arg	Ala	Gln
		195					200					205			
Ala	Trp	Gly	Glu	Arg	Leu	Arg	Ala	Arg	Met	Glu	Glu	Met	Gly	Ser	Arg
	210					215					220				
Thr	Arg	Asp	Arg	Leu	Asp	Glu	Val	Lys	Glu	Gln	Val	Ala	Glu	Val	Arg
225					230					235					240

```
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala
                245                 250                 255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
            260                 265                 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
        275                 280                 285
Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
    290                 295
```

<210> 2
<211> 299
<212> PRT
<213> Homo sapiens

<400> 2

```
Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu Arg Gln
 1               5                  10                  15
Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu Gly Arg
            20                  25                  30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
        35                  40                  45
Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala Leu Met
    50                  55                  60
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65                  70                  75                  80
Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
                85                  90                  95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Cys
            100                 105                 110
Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu Gly Gln
        115                 120                 125
Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg Lys Leu
    130                 135                 140
Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg Leu Ala
145                 150                 155                 160
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu Ser Ala
                165                 170                 175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
            180                 185                 190
Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg Ala Gln
        195                 200                 205
Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
    210                 215                 220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
225                 230                 235                 240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala
                245                 250                 255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
            260                 265                 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
        275                 280                 285
Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
    290                 295
```

<210> 3
<211> 299

<212> PRT
<213> Homo sapiens

<400> 3
Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu Arg Gln
 1   5   10   15
Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu Gly Arg
            20   25   30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
        35   40   45
Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala Leu Met
    50   55   60
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65   70   75   80
Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
                85   90   95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Cys
            100   105   110
Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu Gly Gln
        115   120   125
Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg Lys Leu
    130   135   140
Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Cys Leu Ala
145   150   155   160
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu Ser Ala
                165   170   175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
            180   185   190
Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg Ala Gln
        195   200   205
Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
    210   215   220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
225   230   235   240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala
                245   250   255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
            260   265   270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
        275   280   285
Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
    290   295

<210> 4
<211> 299
<212> PRT
<213> Homo sapiens

<400> 4
Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu Arg Gln
 1   5   10   15
Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu Gly Arg
            20   25   30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
        35   40   45
Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala Leu Met
    50   55   60

```
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65                  70                  75                  80
Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
                85                  90                  95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Cys
            100                 105                 110
Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu Asp Gln
        115                 120                 125
Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg Lys Leu
    130                 135                 140
Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Cys Leu Ala
145                 150                 155                 160
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu Ser Ala
                165                 170                 175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
            180                 185                 190
Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg Ala Gln
        195                 200                 205
Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
    210                 215                 220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
225                 230                 235                 240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala
                245                 250                 255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
            260                 265                 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
        275                 280                 285
Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
    290                 295
```

<210> 5
<211> 299
<212> PRT
<213> Homo sapiens

```
<400> 5
Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu Arg Gln
 1               5                  10                  15
Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu Gly Arg
            20                  25                  30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
        35                  40                  45
Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala Leu Met
    50                  55                  60
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65                  70                  75                  80
Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
                85                  90                  95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Cys
            100                 105                 110
Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu Gly Gln
        115                 120                 125
Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg Lys Leu
    130                 135                 140
Cys Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg Leu Ala
145                 150                 155                 160
```

```
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu Ser Ala
                165                 170                 175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
            180                 185                 190
Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg Ala Gln
        195                 200                 205
Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
    210                 215                 220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
225                 230                 235                 240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala
                245                 250                 255
Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
            260                 265                 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
        275                 280                 285
Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
    290                 295
```

<210> 6
<211> 299
<212> PRT
<213> Homo sapiens

<400> 6

```
Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu Arg Gln
 1               5                  10                  15
Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu Gly Arg
            20                  25                  30
Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln Val Gln
        35                  40                  45
Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala Leu Met
    50                  55                  60
Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu Glu Glu
65                  70                  75                  80
Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser Lys Glu
                85                  90                  95
Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp Val Cys
            100                 105                 110
Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu Gly Gln
        115                 120                 125
Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg Lys Leu
    130                 135                 140
Arg Gln Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg Leu Ala
145                 150                 155                 160
Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu Ser Ala
                165                 170                 175
Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val Arg Ala
            180                 185                 190
Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg Ala Gln
        195                 200                 205
Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly Ser Arg
    210                 215                 220
Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu Val Arg
225                 230                 235                 240
Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala Glu Ala
                245                 250                 255
```

Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu Asp Met
260 265 270
Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala Val Gly
275 280 285
Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
290 295

<210> 7
<211> 1156
<212> DNA
<213> Homo sapiens

<400> 7
cgcagcggag gtgaaggacg tccttcccca ggagccgact ggccaatcac aggcaggaag 60
atgaaggttc tgtgggctgc gttgctggtc acattcctgg caggatgcca ggccaaggtg 120
gagcaagcgg tggagacaga gccggagccc gagctgcgcc agcagaccga gtggcagagc 180
ggccagcgct gggaactggc actgggtcgc ttttgggatt acctgcgctg ggtgcagaca 240
ctgtctgagc aggtgcagga ggagctgctc agctcccagg tcacccagga actgagggcg 300
ctgatggacg agaccatgaa ggagttgaag gcctacaaat cggaactgga ggaacaactg 360
accccggtgg cggaggagac gcgggcacgg ctgtccaagg agctgcaggc ggcgcaggcc 420
cggctgggcg cggacatgga ggacgtgcgc ggccgcctgg tgcagtaccg cggcgaggtg 480
caggccatgc tcggccagag caccgaggag ctgcgggtgc gcctcgcctc ccacctgcgc 540
aagctgcgta agcggctcct ccgcgatgcc gatgacctgc agaagcgcct ggcagtgtac 600
caggccgggg cccgcgaggg cgccgagcgc ggcctcagcg ccatccgcga gcgcctgggg 660
cccctggtgg aacagggccg cgtgcgggcc gccactgtgg gctccctggc cggccagccg 720
ctacaggagc gggcccaggc ctggggcgag cggctgcgcg cgcggatgga ggagatgggc 780
agccggaccc gcgaccgcct ggacgaggtg aaggagcagg tggcggaggt gcgcgccaag 840
ctggaggagc aggcccagca gatacgcctg caggccgagg ccttccaggc ccgcctcaag 900
agctggttcg agcccctggt ggaagacatg cagcgccagt gggccgggct ggtggagaag 960
gtgcaggctg ccgtgggcac cagcgccgcc cctgtgccca gcgacaatca ctgaacgccg 1020
aagcctgcag ccatgcgacc ccacgccacc ccgtgcctcc tgcctccgcg cagcctgcag 1080
cgggagaccc tgtccccgcc ccagccgtcc tcctggggtg gaccctagtt taataaagat 1140
tcaccaagtt tcacgc 1156

<210> 8
<211> 1156
<212> DNA
<213> Homo sapiens

<400> 8
cgcagcggag gtgaaggacg tccttcccca ggagccgact ggccaatcac aggcaggaag 60
atgaaggttc tgtgggctgc gttgctggtc acattcctgg caggatgcca ggccaaggtg 120
gagcaagcgg tggagacaga gccggagccc gagctgcgcc agcagaccga gtggcagagc 180
ggccagcgct gggaactggc actgggtcgc ttttgggatt acctgcgctg ggtgcagaca 240
ctgtctgagc aggtgcagga ggagctgctc agctcccagg tcacccagga actgagggcg 300
ctgatggacg agaccatgaa ggagttgaag gcctacaaat cggaactgga ggaacaactg 360
accccggtgg cggaggagac gcgggcacgg ctgtccaagg agctgcaggc ggcgcaggcc 420
cggctgggcg cggacatgga ggacgtgtgc ggccgcctgg tgcagtaccg cggcgaggtg 480
caggccatgc tcggccagag caccgaggag ctgcgggtgc gcctcgcctc ccacctgcgc 540
aagctgcgta agcggctcct ccgcgatgcc gatgacctgc agaagcgcct ggcagtgtac 600
caggccgggg cccgcgaggg cgccgagcgc ggcctcagcg ccatccgcga gcgcctgggg 660
cccctggtgg aacagggccg cgtgcgggcc gccactgtgg gctccctggc cggccagccg 720
ctacaggagc gggcccaggc ctggggcgag cggctgcgcg cgcggatgga ggagatgggc 780
agccggaccc gcgaccgcct ggacgaggtg aaggagcagg tggcggaggt gcgcgccaag 840
ctggaggagc aggcccagca gatacgcctg caggccgagg ccttccaggc ccgcctcaag 900
agctggttcg agcccctggt ggaagacatg cagcgccagt gggccgggct ggtggagaag 960
gtgcaggctg ccgtgggcac cagcgccgcc cctgtgccca gcgacaatca ctgaacgccg 1020

aagcctgcag ccatgcgacc ccacgccacc ccgtgcctcc tgcctccgcg cagcctgcag 1080
cgggagaccc tgtccccgcc ccagccgtcc tcctggggtg gaccctagtt taataaagat 1140
tcaccaagtt tcacgc 1156

<210> 9
<211> 1156
<212> DNA
<213> Homo sapiens

<400> 9
cgcagcggag gtgaaggacg tccttcccca ggagccgact ggccaatcac aggcaggaag 60
atgaaggttc tgtgggctgc gttgctggtc acattcctgg caggatgcca ggccaaggtg 120
gagcaagcgg tggagacaga gccggagccc gagctgcgcc agcagaccga gtggcagagc 180
ggccagcgct gggaactggc actgggtcgc ttttgggatt acctgcgctg ggtgcagaca 240
ctgtctgagc aggtgcagga ggagctgctc agctcccagg tcacccagga actgagggcg 300
ctgatggacg agaccatgaa ggagttgaag gcctacaaat cggaactgga ggaacaactg 360
accccggtgg cggaggagac gcgggcacgg ctgtccaagg agctgcaggc ggcgcaggcc 420
cggctgggcg cggacatgga ggacgtgtgc ggccgcctgg tgcagtaccg cggcgaggtg 480
caggccatgc tcggccagag caccgaggag ctgcgggtgc gcctcgcctc ccacctgcgc 540
aagctgcgta agcggctcct ccgcgatgcc gatgacctgc agaagtgcct ggcagtgtac 600
caggccgggg cccgcgaggg cgccgagcgc ggcctcagcg ccatccgcga gcgcctgggg 660
cccctggtgg aacagggccg cgtgcgggcc gccactgtgg gctccctggc cggccagccg 720
ctacaggagc gggcccaggc ctggggcgag cggctgcgcg cgcggatgga ggagatgggc 780
agccggaccc gcgaccgcct ggacgaggtg aaggagcagg tggcggaggt gcgcgccaag 840
ctggaggagc aggcccagca gatacgcctg caggccgagg ccttccaggc ccgcctcaag 900
agctggttcg agcccctggt ggaagacatg cagcgccagt gggccgggct ggtggagaag 960
gtgcaggctg ccgtgggcac cagcgccgcc cctgtgccca gcgacaatca ctgaacgccg 1020
aagcctgcag ccatgcgacc ccacgccacc ccgtgcctcc tgcctccgcg cagcctgcag 1080
cgggagaccc tgtccccgcc ccagccgtcc tcctggggtg gaccctagtt taataaagat 1140
tcaccaagtt tcacgc 1156

<210> 10
<211> 1156
<212> DNA
<213> Homo sapiens

<400> 10
cgcagcggag gtgaaggacg tccttcccca ggagccgact ggccaatcac aggcaggaag 60
atgaaggttc tgtgggctgc gttgctggtc acattcctgg caggatgcca ggccaaggtg 120
gagcaagcgg tggagacaga gccggagccc gagctgcgcc agcagaccga gtggcagagc 180
ggccagcgct gggaactggc actgggtcgc ttttgggatt acctgcgctg ggtgcagaca 240
ctgtctgagc aggtgcagga ggagctgctc agctcccagg tcacccagga actgagggcg 300
ctgatggacg agaccatgaa ggagttgaag gcctacaaat cggaactgga ggaacaactg 360
accccggtgg cggaggagac gcgggcacgg ctgtccaagg agctgcaggc ggcgcaggcc 420
cggctgggcg cggacatgga ggacgtgtgc ggccgcctgg tgcagtaccg cggcgaggtg 480
caggccatgc tcgaccagag caccgaggag ctgcgggtgc gcctcgcctc ccacctgcgc 540
aagctgcgta agcggctcct ccgcgatgcc gatgacctgc agaagtgcct ggcagtgtac 600
caggccgggg cccgcgaggg cgccgagcgc ggcctcagcg ccatccgcga gcgcctgggg 660
cccctggtgg aacagggccg cgtgcgggcc gccactgtgg gctccctggc cggccagccg 720
ctacaggagc gggcccaggc ctggggcgag cggctgcgcg cgcggatgga ggagatgggc 780
agccggaccc gcgaccgcct ggacgaggtg aaggagcagg tggcggaggt gcgcgccaag 840
ctggaggagc aggcccagca gatacgcctg caggccgagg ccttccaggc ccgcctcaag 900
agctggttcg agcccctggt ggaagacatg cagcgccagt gggccgggct ggtggagaag 960
gtgcaggctg ccgtgggcac cagcgccgcc cctgtgccca gcgacaatca ctgaacgccg 1020
aagcctgcag ccatgcgacc ccacgccacc ccgtgcctcc tgcctccgcg cagcctgcag 1080
cgggagaccc tgtccccgcc ccagccgtcc tcctggggtg gaccctagtt taataaagat 1140
tcaccaagtt tcacgc 1156

<210> 11
<211> 1156
<212> DNA
<213> Homo sapiens

<400> 11
cgcagcggag gtgaaggacg tccttcccca ggagccgact ggccaatcac aggcaggaag 60
atgaaggttc tgtgggctgc gttgctggtc acattcctgg caggatgcca ggccaaggtg 120
gagcaagcgg tggagacaga gccggagccc gagctgcgcc agcagaccga gtggcagagc 180
ggccagcgct gggaactggc actgggtcgc ttttgggatt acctgcgctg ggtgcagaca 240
ctgtctgagc aggtgcagga ggagctgctc agctcccagg tcacccagga actgagggcg 300
ctgatggacg agaccatgaa ggagttgaag gcctacaaat cggaactgga ggaacaactg 360
accccggtgg cggaggagac gcgggcacgg ctgtccaagg agctgcaggc ggcgcaggcc 420
cggctgggcg cggacatgga ggacgtgtgc ggccgcctgg tgcagtaccg cggcgaggtg 480
caggccatgc tcggccagag caccgaggag ctgcgggtgc gcctcgcctc ccacctgcgc 540
aagctgtgta agcggctcct ccgcgatgcc gatgacctgc agaagcgcct ggcagtgtac 600
caggccgggg cccgcgaggg cgccgagcgc ggcctcagcg ccatccgcga gcgcctgggg 660
cccctggtgg aacagggccg cgtgcgggcc gccactgtgg gctccctggc cggccagccg 720
ctacaggagc gggcccaggc ctggggcgag cggctgcgcg cgcggatgga ggagatgggc 780
agccggaccc gcgaccgcct ggacgaggtg aaggagcagg tggcggaggt gcgcgccaag 840
ctggaggagc aggcccagca gatacgcctg caggccgagg ccttccaggc ccgcctcaag 900
agctggttcg agcccctggt ggaagacatg cagcgccagt gggccgggct ggtggagaag 960
gtgcaggctg ccgtgggcac cagcgccgcc cctgtgccca gcgacaatca ctgaacgccg 1020
aagcctgcag ccatgcgacc ccacgccacc ccgtgcctcc tgcctccgcg cagcctgcag 1080
cgggagaccc tgtccccgcc ccagccgtcc tcctggggtg gaccctagtt taataaagat 1140
tcaccaagtt tcacgc 1156

<210> 12
<211> 1156
<212> DNA
<213> Homo sapiens

<400> 12
cgcagcggag gtgaaggacg tccttcccca ggagccgact ggccaatcac aggcaggaag 60
atgaaggttc tgtgggctgc gttgctggtc acattcctgg caggatgcca ggccaaggtg 120
gagcaagcgg tggagacaga gccggagccc gagctgcgcc agcagaccga gtggcagagc 180
ggccagcgct gggaactggc actgggtcgc ttttgggatt acctgcgctg ggtgcagaca 240
ctgtctgagc aggtgcagga ggagctgctc agctcccagg tcacccagga actgagggcg 300
ctgatggacg agaccatgaa ggagttgaag gcctacaaat cggaactgga ggaacaactg 360
accccggtgg cggaggagac gcgggcacgg ctgtccaagg agctgcaggc ggcgcaggcc 420
cggctgggcg cggacatgga ggacgtgtgc ggccgcctgg tgcagtaccg cggcgaggtg 480
caggccatgc tcggccagag caccgaggag ctgcgggtgc gcctcgcctc ccacctgcgc 540
aagctgcgtc agcggctcct ccgcgatgcc gatgacctgc agaagcgcct ggcagtgtac 600
caggccgggg cccgcgaggg cgccgagcgc ggcctcagcg ccatccgcga gcgcctgggg 660
cccctggtgg aacagggccg cgtgcgggcc gccactgtgg gctccctggc cggccagccg 720
ctacaggagc gggcccaggc ctggggcgag cggctgcgcg cgcggatgga ggagatgggc 780
agccggaccc gcgaccgcct ggacgaggtg aaggagcagg tggcggaggt gcgcgccaag 840
ctggaggagc aggcccagca gatacgcctg caggccgagg ccttccaggc ccgcctcaag 900
agctggttcg agcccctggt ggaagacatg cagcgccagt gggccgggct ggtggagaag 960
gtgcaggctg ccgtgggcac cagcgccgcc cctgtgccca gcgacaatca ctgaacgccg 1020
aagcctgcag ccatgcgacc ccacgccacc ccgtgcctcc tgcctccgcg cagcctgcag 1080
cgggagaccc tgtccccgcc ccagccgtcc tcctggggtg gaccctagtt taataaagat 1140
tcaccaagtt tcacgc 1156

<210> 13
<211> 18
<212> PRT
<213> Homo sapiens

```
<400> 13
Met Lys Val Leu Trp Ala Ala Leu Leu Val Thr Phe Leu Ala Gly Cys
 1               5                  10                  15
Gln Ala



<210> 14
<211> 317
<212> PRT
<213> Homo sapiens

<400> 14
Met Lys Val Leu Trp Ala Ala Leu Leu Val Thr Phe Leu Ala Gly Cys
 1               5                  10                  15
Gln Ala Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu
            20                  25                  30
Arg Gln Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu
        35                  40                  45
Gly Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln
    50                  55                  60
Val Gln Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala
65                  70                  75                  80
Leu Met Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu
                85                  90                  95
Glu Glu Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser
            100                 105                 110
Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp
        115                 120                 125
Val Arg Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu
    130                 135                 140
Gly Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg
145                 150                 155                 160
Lys Leu Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg
                165                 170                 175
Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu
            180                 185                 190
Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val
        195                 200                 205
Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg
    210                 215                 220
Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly
225                 230                 235                 240
Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu
                245                 250                 255
Val Arg Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala
            260                 265                 270
Glu Ala Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu
        275                 280                 285
Asp Met Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala
    290                 295                 300
Val Gly Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
305                 310                 315


<210> 15
<211> 317
<212> PRT
```

<213> Homo sapiens

<400> 15

```
Met Lys Val Leu Trp Ala Ala Leu Leu Val Thr Phe Leu Ala Gly Cys
 1               5                  10                  15
Gln Ala Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu
            20                  25                  30
Arg Gln Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu
        35                  40                  45
Gly Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln
    50                  55                  60
Val Gln Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala
65                  70                  75                  80
Leu Met Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu
                85                  90                  95
Glu Glu Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser
            100                 105                 110
Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp
        115                 120                 125
Val Cys Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu
    130                 135                 140
Gly Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg
145                 150                 155                 160
Lys Leu Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg
                165                 170                 175
Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu
            180                 185                 190
Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val
        195                 200                 205
Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg
    210                 215                 220
Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly
225                 230                 235                 240
Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu
                245                 250                 255
Val Arg Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala
            260                 265                 270
Glu Ala Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu
        275                 280                 285
Asp Met Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala
    290                 295                 300
Val Gly Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
305                 310                 315
```

<210> 16
<211> 317
<212> PRT
<213> Homo sapiens

<400> 16

```
Met Lys Val Leu Trp Ala Ala Leu Leu Val Thr Phe Leu Ala Gly Cys
 1               5                  10                  15
Gln Ala Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu
            20                  25                  30
Arg Gln Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu
        35                  40                  45
Gly Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln
```

```
    50                  55                  60
Val Gln Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala
65                  70                  75                  80
Leu Met Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu
                85                  90                  95
Glu Glu Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser
            100                 105                 110
Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp
        115                 120                 125
Val Cys Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu
    130                 135                 140
Gly Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg
145                 150                 155                 160
Lys Leu Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Cys
                165                 170                 175
Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu
            180                 185                 190
Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val
        195                 200                 205
Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg
    210                 215                 220
Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly
225                 230                 235                 240
Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu
                245                 250                 255
Val Arg Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala
            260                 265                 270
Glu Ala Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu
        275                 280                 285
Asp Met Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala
    290                 295                 300
Val Gly Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
305                 310                 315


<210> 17
<211> 317
<212> PRT
<213> Homo sapiens

<400> 17
Met Lys Val Leu Trp Ala Ala Leu Leu Val Thr Phe Leu Ala Gly Cys
 1                  5                  10                  15
Gln Ala Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu
            20                  25                  30
Arg Gln Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu
        35                  40                  45
Gly Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln
    50                  55                  60
Val Gln Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala
65                  70                  75                  80
Leu Met Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu
                85                  90                  95
Glu Glu Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser
            100                 105                 110
Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp
        115                 120                 125
Val Cys Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu
```

130 135 140
Asp Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg
145 150 155 160
Lys Leu Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Cys
165 170 175
Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu
180 185 190
Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val
195 200 205
Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg
210 215 220
Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly
225 230 235 240
Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu
245 250 255
Val Arg Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala
260 265 270
Glu Ala Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu
275 280 285
Asp Met Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala
290 295 300
Val Gly Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
305 310 315

<210> 18
<211> 317
<212> PRT
<213> Homo sapiens

<400> 18
Met Lys Val Leu Trp Ala Ala Leu Leu Val Thr Phe Leu Ala Gly Cys
1 5 10 15
Gln Ala Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu
20 25 30
Arg Gln Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu
35 40 45
Gly Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln
50 55 60
Val Gln Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala
65 70 75 80
Leu Met Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu
85 90 95
Glu Glu Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser
100 105 110
Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp
115 120 125
Val Cys Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu
130 135 140
Gly Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg
145 150 155 160
Lys Leu Cys Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg
165 170 175
Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu
180 185 190
Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val
195 200 205
Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg

210 215 220
Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly
225 230 235 240
Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu
245 250 255
Val Arg Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala
260 265 270
Glu Ala Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu
275 280 285
Asp Met Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala
290 295 300
Val Gly Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His
305 310 315

<210> 19
<211> 317
<212> PRT
<213> Homo sapiens

<400> 19
Met Lys Val Leu Trp Ala Ala Leu Leu Val Thr Phe Leu Ala Gly Cys
1 5 10 15
Gln Ala Lys Val Glu Gln Ala Val Glu Thr Glu Pro Glu Pro Glu Leu
20 25 30
Arg Gln Gln Thr Glu Trp Gln Ser Gly Gln Arg Trp Glu Leu Ala Leu
35 40 45
Gly Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Thr Leu Ser Glu Gln
50 55 60
Val Gln Glu Glu Leu Leu Ser Ser Gln Val Thr Gln Glu Leu Arg Ala
65 70 75 80
Leu Met Asp Glu Thr Met Lys Glu Leu Lys Ala Tyr Lys Ser Glu Leu
85 90 95
Glu Glu Gln Leu Thr Pro Val Ala Glu Glu Thr Arg Ala Arg Leu Ser
100 105 110
Lys Glu Leu Gln Ala Ala Gln Ala Arg Leu Gly Ala Asp Met Glu Asp
115 120 125
Val Cys Gly Arg Leu Val Gln Tyr Arg Gly Glu Val Gln Ala Met Leu
130 135 140
Gly Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser His Leu Arg
145 150 155 160
Lys Leu Arg Gln Arg Leu Leu Arg Asp Ala Asp Asp Leu Gln Lys Arg
165 170 175
Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu Arg Gly Leu
180 185 190
Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Val
195 200 205
Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu Gln Glu Arg
210 215 220
Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu Glu Met Gly
225 230 235 240
Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln Val Ala Glu
245 250 255
Val Arg Ala Lys Leu Glu Glu Gln Ala Gln Gln Ile Arg Leu Gln Ala
260 265 270
Glu Ala Phe Gln Ala Arg Leu Lys Ser Trp Phe Glu Pro Leu Val Glu
275 280 285
Asp Met Gln Arg Gln Trp Ala Gly Leu Val Glu Lys Val Gln Ala Ala

290 295 300

Val Gly Thr Ser Ala Ala Pro Val Pro Ser Asp Asn His

305 310 315